



# U S E R   G U I D E

For Software Release 1.5.18



**HD1000**



# WELCOME TO ROKU™!

Bring your HDTV to life with Roku. For the first time, you'll enjoy viewing your favorite digital photos in high-definition on your HDTV. Simply snap in your digital camera's memory card or use the easy network connection between Roku and your home PC. And if you like a more sophisticated atmosphere, choose from a wide selection of motion and still artwork to turn your flat screen or HDTV into beautiful wall art. Roku offers custom Art Packs on CompactFlash® cards so you can create an inspiring home gallery in your living room.

Roku even plays digital music files over your home network, so you can enjoy your growing digital music library on your home stereo system. Any way you use it, Roku is simple and easy. Just connect to your home network for sharing digital media from your PC, or pop in a variety of memory cards and watch your HDTV come to life with high-definition digital photos, art and music.

This guide provides the basics for using your new HD1000. For the most up-to-date information about tips and tricks, networking, troubleshooting and frequently asked questions, please visit [www.rokulabs.com](http://www.rokulabs.com). (And while you're there, please register your HD1000. Periodically, we release software upgrades that add new features — and if you don't register, we can't let you know about the updates.)

## In This Guide ...

- 2 The Roku HD1000**
- 4 Roku HD1000 Feature Summary**
- 7 Connecting the HD1000**
- 13 Using the HD1000**
  - 13 Main Menu
  - 14 Viewing Pictures
  - 15 Viewing MPEG Video
  - 15 Playing Music
  - 17 Photo, Video and Music Sharing from the Computer
- 20 Photo Viewing Tips**
- 25 Setup and Preferences**
- 29 Troubleshooting**

## Package Contents

- Roku HD1000
- Component Video Cable
- Remote Control
- Two AAA Batteries
- Audio Cable
- Power Cable

## Optional Accessories

- Rack Ears
- Wi-Fi Adapter
- Roku Art Packs
- Crestron Driver

Visit [www.rokulabs.com](http://www.rokulabs.com) for more information on optional accessories.

# THE ROKU HD1000

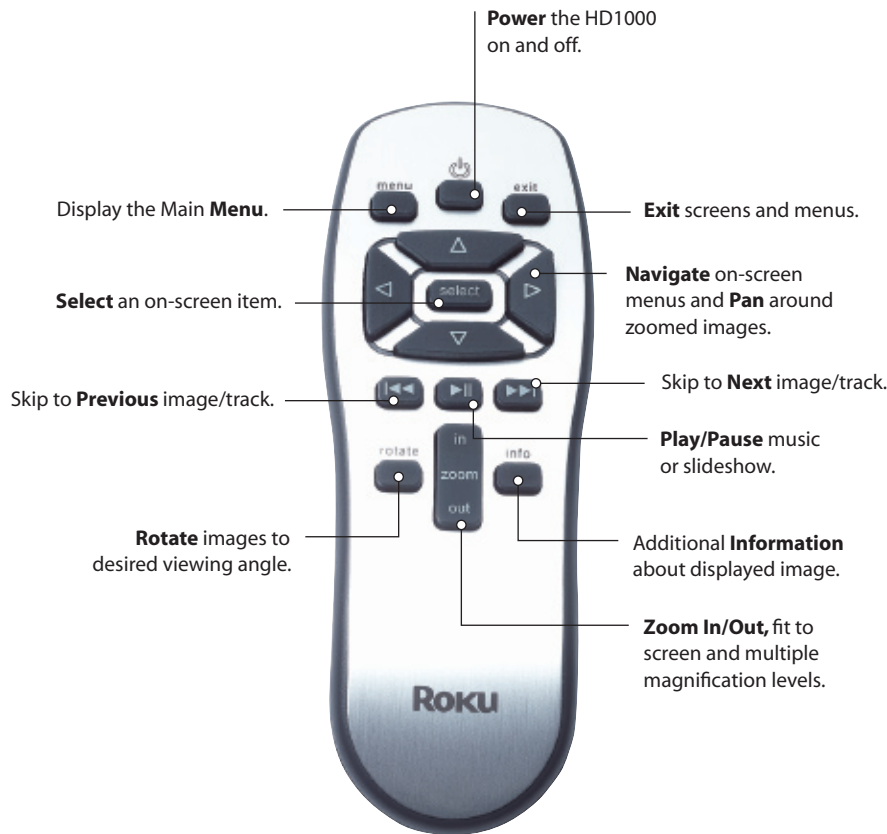
## The Roku Remote

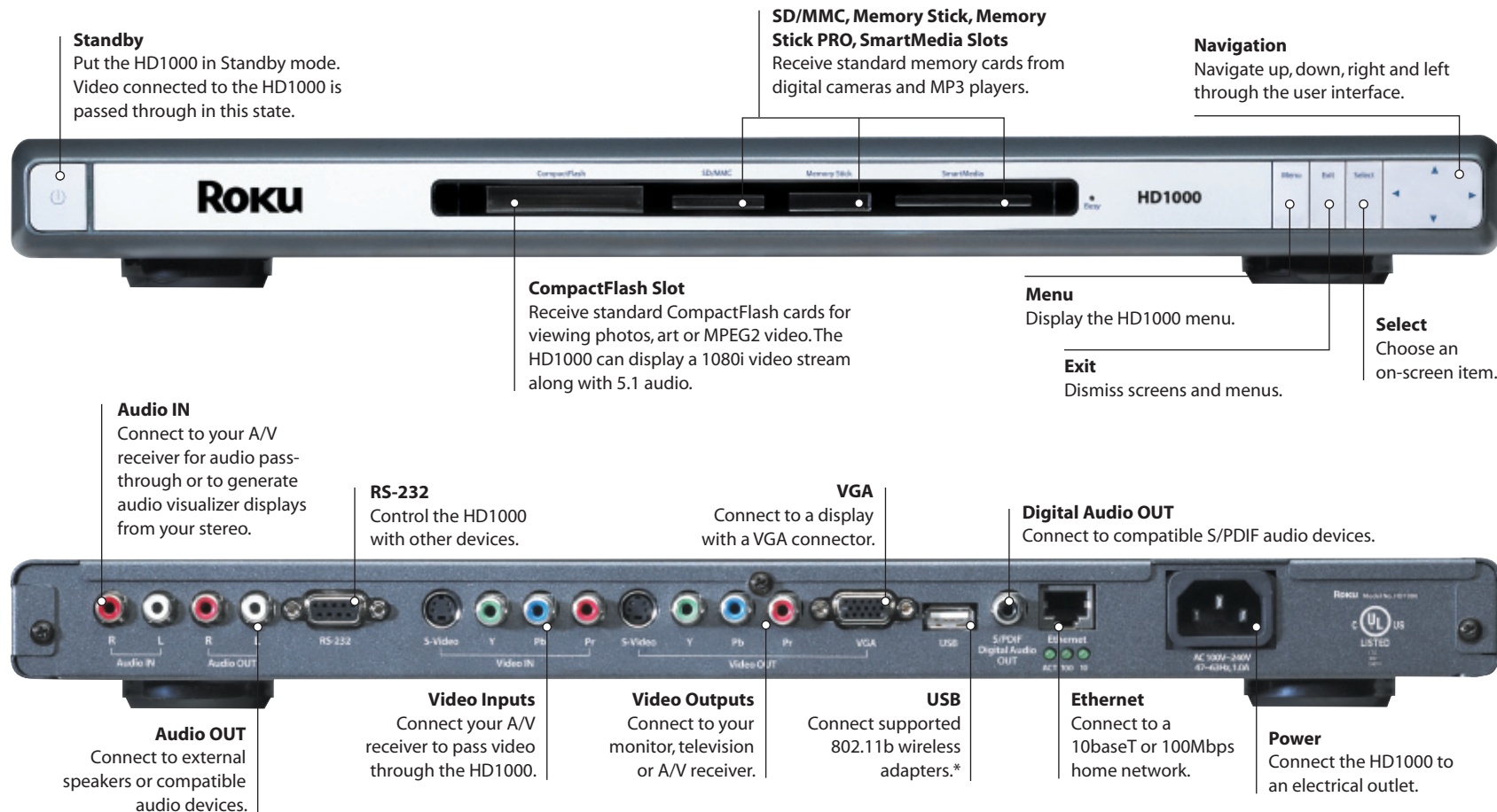
Enjoying pictures, art and music involves just a few touches of a button.

Make sure you install batteries in the remote before setting up your HD1000.

## Navigating

To get around the screen, move the yellow highlight using the four arrow (navigation) buttons. Press the Select key to choose an on-screen item. Press the Menu key to display the Main Menu, from which you can access other media and functions.





\* Check [www.rokulabs.com](http://www.rokulabs.com) for compatible Wi-Fi devices.

# ROKU HD1000 FEATURE SUMMARY

## Personal Photos



- The world's first high-definition photo viewer,
- View digital photos in beautiful high resolution, with zoom, rotate, pan, and image data display functions,
- Browse images manually or play an image slideshow, with or without music,

## Inspiring Art



- Roku offers motion and still Art Packs by download or on CompactFlash memory cards so you can enjoy an inspiring home gallery in your living room.
- Roku LiveArt™ (available on Nature, Aquarium and Clocks Art Packs) brings motion to art in the form of HD MPEG2 video clips. Enjoy a rippling mountain lake, a breezy California poppy field, or a lifelike aquarium from the comfort of your living room.
- See [www.rokulabs.com/products/artpacks](http://www.rokulabs.com/products/artpacks) for details about Gallery Collection and individual Roku Art Packs.

## Digital Music



- Play your PC or Mac library of MP3, WAV, and AIFF audio files and playlists (M3U and PLS formats) when you connect the Roku through your home network.
- View an HD photo slideshow accompanied by your favorite songs.

## Video Playback

- Play HD ATSC-compliant MPEG2 transport stream video, which is the type of signal typically broadcast over the air by a local digital television station.
- Customers who use tuner cards to record digital broadcast television to a computer will enjoy viewing these recorded segments on their HDTV through the Roku HD1000.
- Third-party applications are available to support additional formats.

## Roku Open Platform & SDK

- The Roku HD1000 is based on the Roku OS, an open-source, Linux-based platform optimized for digital media.
- Software Developer Kit (SDK) enables developers to create innovative new applications.
- See [www.rokulabs.com/developers](http://www.rokulabs.com/developers) for more information.



## Hardware



- The only digital media player designed specifically for your high-def TV.
- Memory card slots on the front give easy access to digital media on CompactFlash, SD, MMC, Memory Stick, and SmartMedia cards. XD cards can also be used with a simple adapter.
- Network ready with built-in Ethernet or Wi-Fi adapter.
- Supports a broad range of digital and analog AV connectors, allowing for seamless integration with any home entertainment system.
- Screen saver and pass-through modes help prevent burn-in.
- Intuitive user interface controlled via simple, custom remote control.

## Optional Accessories

- Roku Art Packs
  - Aquarium
  - The Classics
  - Clocks
  - Nature
  - Winter Holiday (download only)
  - Space (download only)
- Rack Ears
- Crestron Driver (third-party accessory)
- Extra Remote Control
- WiFi Network Adapter (third-party accessory)

Art Packs and other accessories are available at **[www.rokulabs.com](http://www.rokulabs.com)** and in stores where the Roku HD1000 is sold.





# CONNECTING THE HD1000

## Connection Methods

The HD1000 is designed to connect to your AV system in one of two ways. In the first method, you connect the HD1000 like you would a DVD player or any other normal audio-video source. An alternate method allows you to connect your HD1000 “in-line” as the last device between an AV source (such as an AV receiver) and your display device. Both of these options are discussed in more detail below.

### Separate AV Source

Connect the appropriate HD1000 audio and video outputs to the corresponding inputs on your TV or AV receiver. You will use the HD1000 like you would any other audio-video source by switching to the appropriate audio-video source on your TV or AV receiver.

### In-Line/Video Pass Through

When using the in-line mode, you connect both the Video/Audio Ins and Outs on your HD1000. The video and audio will be passed through (using high-quality analog switches) when the HD1000 is in Standby mode. The HD1000 enters Standby mode when you press the power button and the power light is off. When in this mode your HD1000 monitors the incoming video signal and automatically generates a screen saver when appropriate, decreasing the chance of burn-in. For more information on this connection method, see “Connecting Your HD1000 to Use the Video Pass-Through Feature” below.

Mode	Connector	Format	Picture Quality
1	Component	480i	Good
2	S-Video	480i	Good
3	Composite	480i	Good
4	Component	480p	Better
5	Component	720p	Best
6	Component	1080i	Best
7	VGA	480p	Better
8	VGA	720p	Best
9	VGA	1080i	Best
10	VGA	1024x768	*

### Preparing to Connect

How you connect the HD1000 also depends upon your type of display and its available inputs. The HD1000 offers four options for connection to your display: Composite, S-Video, VGA and Component. Only one type of connector may be connected at a time, or image quality will be adversely affected. We highly recommend that you use either Component or VGA for the best image quality. However, we have provided S-Video and Composite for specialized applications.

From the factory, the HD1000 is set to output Component 480i. This connection is widely supported by most HDTVs, but the other options yield superior results and are recommended if your display supports them (see the chart). We recommend a Component 720p or 1080i connection for best results, if supported by your display.

\*Note: Generally, the Roku HD1000 supports wide-screen resolutions (1280x720, 1920x1080), but it also supports 1024x768 in standard 4:3 aspect ratio for certain (primarily commercial) applications. The HD1000 user interface was designed for use on wide-screen HDTV monitors. Therefore, when displayed 4:3 in this 1024x768 mode, the menus and buttons and so forth look slightly stretched vertically. However, images themselves (photos, art) are displayed in their proper aspect ratio without distortion. Please note that LiveArt™ will have the same vertical stretching effect as the user interface.



## Connecting via Component

Most component-capable displays are able to display the HD1000's initial setup screen when connected via the component cables. In the event you cannot see the initial setup screen, proceed to the "Connecting Without On-Screen Display" section.

1. Connect the component cables (the three-wire cable with red, green and blue plugs) to the HD1000, taking care to connect to the Video Out connectors and being certain to match the colors of the cables to the colors of the connectors.
2. Connect the other end of the component cables to your display (or your component AV receiver), again being certain to match the colors. If your display has both Component and separate HDTV or HD Component input connectors, connect to the HDTV or HD Component connectors.
3. Turn on the display and, with the remote for your TV, select the input to which you have just connected the cable.
4. Connect the power cable to the back of the HD1000 and plug it into an electrical outlet.

5. You'll see a Busy light blinking, and a startup graphic will appear on your screen. Once the HD1000 is fully started up, the Busy light will stop, the Power light will begin to blink and you will see the initial setup screen.
6. If you do not see the setup screen, check the input selection on the display, then re-check the cable connections (being certain that the colors are matched and that the cables are connected to the Video Out connection on the HD1000). If there is still no picture, proceed to "Connecting Without On-Screen Display."
7. You should see the Display Format setup screen on your display at this point, and it should read "Component 480i." The Power LED will begin blinking with the mode number referenced in the previous table.  
  
Note: The Power LED will change the number of times it blinks to correspond to the current mode.
8. Once the proper format has been selected, press Select. Then use the down arrow to move the yellow highlight to the Accept button, and press the Select key to confirm your choice.

## Connecting via VGA

Most VGA-capable displays are able to display the HD1000's initial setup screen when connected via the VGA cable, but the display may appear in black and white or green because the HD1000 is outputting a Component Video signal. This is normal. The following steps cover selecting the correct output signal:

1. Connect a VGA cable to the HD1000, taking care to make sure the connection is secure.
2. Connect the other end of the VGA cable to your display.



3. Turn on the display and select the input to which you have just connected the cable.
4. Connect the power cable to the back of the HD1000 and plug it into an electrical outlet.
5. You'll see a Busy light blinking, and a startup graphic will appear on your screen. Once the HD1000 is fully started up, the Busy light will stop, the Power light will begin to blink and you will see the initial setup screen.
6. If you do not see the startup and setup screens, check the input selection on the display, then re-check the cable connection. If there is still no picture, proceed to "Connecting Without On-Screen Display" on page 10.
7. You should see the Video Output Format setup screen on your display at this point (in black and white or green), and it should read "Component 480i." The Power LED will begin blinking with the mode number referenced in the previous table.
8. Proceed to the VGA resolutions by pressing the right arrow button on the front panel or remote control. The screen may go dark when cycling through non-VGA modes.  
  
Note: The Power LED will change the number of times it blinks to correspond to the current mode.
9. Once the proper format has been selected, press Select. Then use the down arrow to move the yellow highlight to the Accept button, and press the Select key to confirm your choice.



## Connecting via S-Video

Most S-Video displays are able to display the HD1000's initial setup screens when connected via the S-Video cable, but the display will

appear initially in black and white or green because the HD1000 is outputting a Component compatible signal. This is normal. The following steps cover selecting the correct output signal:

1. Connect an S-Video cable to the Video Out S-Video connector on the back of the HD1000.
2. Connect the other end of the cable to an S-Video input connector on your display.
3. Turn on the display and select the input to which you have just connected the cable.
4. Connect the power cable to the back of the HD1000 and plug it into an electrical outlet.
5. You'll see a Busy light blinking, and a startup graphic will appear on your screen. Once the HD1000 is fully started up, the Busy light will stop, the Power light will begin to blink and you will see the initial setup screen.
6. Once the initial setup screen appears, the Power LED will begin blinking with the mode number referenced in the previous chart. Press the right arrow button on the front panel or remote control until you arrive at mode 2: S-Video 480i.  
  
Note: The Power LED should be blinking twice — indicating mode 2 — when you have arrived on S-Video 480i.
7. Once the proper format has been selected, press Select. Then use the down arrow to move the yellow highlight to the Accept button, and press the Select key to confirm your choice.

## Connecting via Composite

Most Composite capable displays are able to display the HD1000's initial setup screen when connected via the Composite cable, but the



display may appear in black and white or green because the HD1000 is outputting a Component Video signal. This is normal. The following steps cover selecting the correct output signal. (Composite is normally a single yellow RCA jack on your TV. On the HD1000, the composite connector is shared with the “Y” component connector.)

1. Connect a composite video cable to the HD1000, making sure the cable is connected to the green output jack labeled “Y.”

Note: This is the Y output jack for Component video — it is a shared jack with Composite.

2. Connect the other end of the Composite cable to your display.
3. Turn on the display and select the input to which you have just connected the cable.
4. Connect the power cable to the back of the HD1000 and plug it into an electrical outlet.
5. You’ll see a Busy light blinking, and a startup graphic will appear on your screen. Once the HD1000 is fully started up, the Busy light will stop, the Power light will begin to blink and you will see the initial setup screen.
6. If you do not see the startup and setup screens, check the input selection on the display, then re-check the cable connection. If there is still no picture, go to “Connecting Without On-Screen Display” below.
7. You should see the Video Output Format setup screen on your display at this point (in black and white or green), and it should read “Component 480i.” The Power LED will begin blinking with the mode number referenced in the previous table.
8. Proceed to Composite 480i by pressing the right arrow button on the front panel or remote control until you arrive at that selection.

Note: The Power LED will change the number of times it blinks to correspond to the current mode as you change selections.

9. Once the proper format has been selected, press Select. Then use the down arrow to move the yellow highlight to the Accept button and press the Select key to confirm your choice.

## Connecting Without On-Screen Display

Some displays are not able to display the initial picture from the HD1000. However, once the HD1000 has started up, you can use the front-panel buttons to step through the HD1000’s supported output connections and formats until your display shows the correct picture.

1. Ensure that the appropriate cable(s) are connected to the proper Video Out connector(s) on your HD1000 (matching the cable and connector colors if using Component) and are connected to the display.
2. Turn on the display and select the input corresponding to the connection you have just made.
3. Connect the power cable to the back of the HD1000 and plug it into an electrical outlet.
4. Wait a minute or so for the front-panel Power LED to begin to blink. It blinks the number of times corresponding to the video mode in the table on page 4.
5. Press the right arrow button on the front panel of the HD1000 and check the display for a picture. If no picture appears after about five seconds, press the right arrow again. Repeat this process until a picture appears in color.

Note: Each time you press the right arrow the Power LED changes the number of times it blinks corresponding to the video mode

listed in the previous table. If you have pressed the right arrow button ten times without a picture appearing, check the “Trouble-shooting” section.

6. Once the proper format has been selected, press Select. Then use the down arrow to move the yellow highlight to the Accept button, and press the Select key to confirm your choice.
7. Once the proper format has been selected, use the down arrow to move the yellow highlight to the OK button, and press the Select key to confirm your choices.

## Audio Connections

You may connect your HD1000 to an amplifier, a display with powered speakers or an external set of powered speakers to enjoy music playback. The HD1000 supports both analog audio output and digital (S/PDIF) audio output.

1. Decide which audio output you want to use: analog or digital.
2. If using analog audio, connect a standard stereo audio cable (supplied) to the red and white Audio Out connectors on the back of your HD1000. Connect the other end of the cable to the audio input on your amplifier, display or speakers. Be sure to match the colors of the plugs to the colors of the connectors.
3. If using digital audio, connect a coaxial digital audio cable to the Digital Audio Out connector on your HD1000. Connect the other end of the cable to an S/PDIF-compatible audio input on your amplifier, display or speakers.

Your HD1000 can also act as a pass-through for external audio sources. Connect a standard stereo audio cable to the Audio In jacks on the back of your HD1000, taking care to match plug and connector

colors. Connect the other end of the cable to the audio output of the desired audio source. For example, the Monitor connection on your AV receiver, or the Audio Out connection on your stereo. When the HD1000 is in Standby, this audio connection is passed through to the stereo Audio Out connectors.

## Connecting Your HD1000 to Your Home Network

Your HD1000 can be used to enjoy your existing collection of pictures, music and more by connecting to your computer over your home network. A 10/100 Ethernet port is included right on the back of the unit, and the HD1000 will automatically configure itself via the DHCP protocol. Just connect the network cable before plugging the unit into AC Power. Wireless network adapters are also supported for connection to an existing Wi-Fi network. See our website at [www.rokulabs.com/](http://www.rokulabs.com/) support for details on supported wireless adapters, as well as detailed instructions for accessing your PC or Mac over the network.

## Connecting Your HD1000 To Use the Video Pass-Through Feature

Your HD1000 comes equipped with S-Video and Component video inputs. This feature allows you to connect the HD1000 between an existing source component (like a DVD player or AV receiver) and your display. In this way, you can share an input on your display without running another cable. And the HD1000 can act as an automatic Screen Saver, detecting a non-moving picture on the video input and switching to a display designed to minimize burn-in.

To use your HD1000 in pass-through mode, follow these steps:

1. Decide on the type of input you will use on your display. If that display input is already connected to an existing source, discon-

nect the cable from the existing display device and connect it to your HD1000 inputs. Otherwise, select your source device and connect it to the appropriate Video-In connector(s) on the back of the HD1000. This cable/source type must match the cable/type you will use to connect the HD1000 video output. When the HD1000 is in Standby mode, this source will be “passed through” the HD1000 “as-is” — no conversion or transformation is applied to the signal.

2. Follow the appropriate steps in the “Connecting the HD1000” sections above to connect the HD1000 Video-Out to your display.

When your HD1000 is in Standby mode (Power LED not lit), the signal present on the Video In connector will now be sent to the Video Out connector. Pressing the Power key for your HD1000 displays the HD1000’s signal. Use the Setup option on the Main Menu to configure the screen saver and pass-through modes.

Note: Only one type of output cable may be connected to the HD1000 at a time or the output picture quality will be reduced. The video input used for pass-through must be the same type of cable (S-Video or Component). Video pass-through is not available in VGA mode.

For more information about connecting your HD1000, please see the “Troubleshooting” section on page 29.

For more information about troubleshooting, tips & tricks and frequently asked questions, please visit our Website at **[www.rokulabs.com](http://www.rokulabs.com)**.

# USING THE HD1000

## Main Menu

**Media Sources.** Your various media sources will be displayed vertically on the left side of the screen. At the top, you'll see an icon for Built-In Storage. (This internal memory can be used to store a limited number of photos or small applications.) Below the Built-In Storage icon, you'll see icons representing inserted memory cards and/or connected network shares containing photos, art, video, music, or Roku applications. Highlight the source you want, and then move to the right to choose Slideshow, Browse or Listen. These options will change depending on the actual content of each media source. You'll also notice that the selected media source is surrounded by a lighter blue tab for easy identification of the active source.

**Setup.** Setup, in the bottom left corner, allows you to set the type of connection used from the HD1000 to your display, the output resolution and many other options. See the "Setup and Preferences" section for additional details.

**Images.** The Images section will appear in the Main Menu when a selected media source contains photos, art or video. You'll have the option to choose to view the images as a Slideshow or Browse through a series of small, catalogued images called "thumbnails."



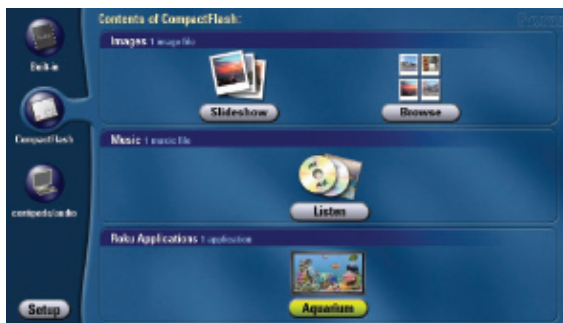
**Music.** The Music section will appear in the Main Menu when a selected media source contains digital music files. The only option is Listen. Listen will take you to an extensive menu of song titles, as well as album and artist information.

**Roku Applications.** The Roku HD1000 uses Roku's Open OS Platform. Just as Windows is a platform for writing desktop PC applications, the Roku OS is a platform for creating sophisticated and easy-to-use digital media applications for the home. Roku writes applications for this platform, as do several third-party developers. Roku Applications that are on a selected memory card or network share will appear here. Select the application icons to run them.



## Viewing Pictures, Art and LiveArt™

Press the Menu button on your remote control to view your media sources, if you don't see them already. Your screen should look similar to the one below.



**Slideshow.** Select Slideshow to start the Slideshow Viewer and see each image or MPEG video from the selected media source. If your HD1000 is currently showing the Main Menu and you insert a memory card with photos, art or MPEG video, the slideshow begins automatically, displaying the content from that card.

Images advance every five seconds. Refer to “The Roku Remote” on page 2 to learn how to control image viewing. The 5-second delay can be adjusted in the Photo Options screen (see page 27).

Note: A screen saver will display if an image remains on screen for an extended period of time. This feature reduces the chance of screen burn-in.

*If you have more than one media source to choose from . . .*

1. In the Main Menu, move the yellow highlight into the left-hand column.
2. Use the up and down arrows to highlight each of the media sources. Notice that the options shown on the right of the screen change as you highlight each media source.
3. When the desired media source is highlighted, move the highlight to the right, and choose Slideshow to begin viewing the images, or Browse to quickly look through your images in a thumbnail representation.

Note: In the Browse screen, you can also change the active media source without returning to the Main Menu.



**Browse.** Select Browse to see a series of thumbnail images representing each image or MPEG video from the selected media source. Move the highlight around the screen and press the Select button to view an image. Press Exit at any time when viewing pictures to return to the Browse screen.



## Shortcuts

- Press the Play button to start a slideshow beginning with the highlighted image.
- If there are more thumbnails than can fit on the screen, press Zoom In to page up; press Zoom Out to page down.
- To rotate an image to the proper orientation before viewing, highlight the image and press the Rotate button. This is quicker than rotating in the full-screen view.
- To exit the Image Viewer and return to the Main Menu, press Menu or Exit on your remote control. Exit takes you to the prior screen.

## Viewing MPEG Video

The HD1000 has the capability of playing ATSC-compliant MPEG2 transport streams. This is the type of signal typically broadcast over the air by a local digital television station. These streams may be either standard- or high-definition, and may include multichannel audio (Dolby Digital 5.1).

There are a number of PC-based products (tuner cards) that allow the recording of digital broadcast television to a computer hard disk as a transport stream.

There are also some PC utilities for converting video files of other types into a transport stream that may be compatible with the HD1000, although we have not had the opportunity to test these conversion utilities.

The HD1000 treats MPEG2 video clips in your media folders as images. If you play a slideshow that contains a supported video clip, the clip will play with the same timing as the rest of your images in the slideshow. For example, if your delay time is 5 seconds, and your clip is 10 seconds long, only the first 5 seconds will play, and then the slideshow will advance to the next image or video clip. (If your clip is shorter than the selected delay time, it will play the clip all the way through and continue playing the beginning again until the delay time has been reached.) If you would like to play a video clip all the way through, navigate to the clip using the Browse button, highlight the clip, and press Select on your remote. The clip will play all the way through, then loop to play from the beginning again. This continuous play will continue until you press Pause or Exit on the remote.

## Playing MPEG2 Video Clips Using Roku's StreamPlayer Utility

Roku's StreamPlayer utility, available as a free download from Roku's website, allows playback of ATSC MPEG2 transport stream files, including seamless sequential playback of multiframe recording. Visit [www.rokulabs.com/support](http://www.rokulabs.com/support) for details.

## Playing Music

Select Listen to hear your digital music files. The HD1000 offers familiar music playing features and controls. To play music, insert a card from your MP3 player into one of the front slots, then choose the Listen option; or press Menu to navigate to a shared media source that contains your music files.

The music player screen shows the songs on the media source along with the artist and album.



Sharing photos, video and music from your PC requires:

- Wired or wireless Ethernet network (Networked HD video playback requires a wired network; wireless networks require an optional adapter);
- PC with Microsoft® Windows® 98, Windows 2000, Windows ME, Windows XP Home Edition or Professional, with Windows File Sharing enabled; or
- Mac OS X 10.2 or later (10.2.6 or later recommended) is required for music and photos.

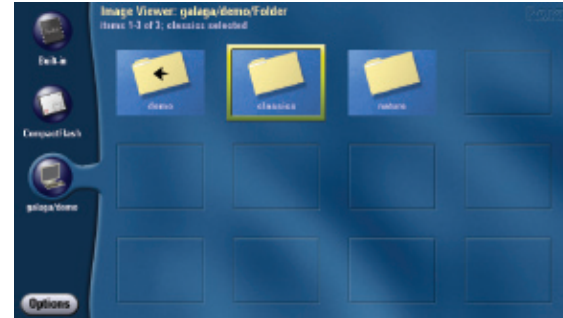
Important: Shared folder names on your PC or Mac must be 12 or fewer characters in length.

Visit [www.rokulabs.com/support](http://www.rokulabs.com/support) for networking setup instructions specific to each supported platform.

## Browsing Directories

Your Roku HD1000 scans each media source and finds all of the media files it contains. When viewing the contents of your removable memory card, you will see all files displayed in one list (Roku “flat-tens” directory structures and shows one combined list of files). Press Select while the memory card Media Source is highlighted, then navigate to Browse or Listen to see the image and music contents.

When browsing media on your networked computer, you will see all folders within the shared media source, making it easier to find the files you want. After highlighting the media source from the Main Menu, navigate to Browse or Listen then press Select to see the image and music contents.



You can press Select to navigate to the next level down in the folder structure, or press Play on your remote to play all media inside the active folder (and any of its subfolders).



Notice how your path location is always displayed on the top of the screen. You can navigate back up a level by highlighting the folder with a Back arrow inside and pressing Select, or by pressing Exit on your remote.

You may notice that once you begin browsing images, you enter Image Viewer mode (or Music Player mode if you began by browsing music). Any browsing will be confined to that media type until you exit to the Main Menu by pressing Menu or Exit. From the Main Menu, you once again have the option to access both image and music files.

### **Memory Card Specifications**

CompactFlash cards must have a sustained read speed of 3 MBps or more for viewing high-definition MPEG2 video and LiveArt.™ Only CompactFlash cards or the network drive connected via 100MBps wired Ethernet may be used for high-definition video playback.

Need help? Go to **[www.rokulabs.com/support](http://www.rokulabs.com/support)**  
or contact **[support@rokulabs.com](mailto:support@rokulabs.com)**.

# PHOTO VIEWING TIPS

## Tip #1: The basics

Your HD1000's image viewer has several user-configurable options:

- \* Fit/fill mode
- \* Delay between images in a slideshow
- \* Info display mode
- \* Preferred rotation direction

These options can be accessed in two ways:

In the browse screen (where you look at your images as miniature thumbnails), there is an Options button.



Highlight the Options button and press Select on the remote to bring up the Options dialog. While looking at pictures full-screen, just press the Select button on the remote. (Note that bringing up the Options window with a slideshow playing will pause the slideshow. Press Play/Pause on the remote once you've closed the window.)



In either case, you just make your choices and click the Done button. Roku remembers your settings until you change them, even if you turn your HD1000 off. Press Exit on the remote to dismiss the dialog without making any changes.

## Tip #2: To play or not to play

When you press the Slideshow button on the Main Menu, insert an image card, or launch an Art Pack, your HD1000 automatically advances through the images on the selected media source. Sometimes, you may want to linger over a particular image. This is easy: just press the Play/Pause button on the remote. Notice that a pause icon appears momentarily in the lower right corner of the screen. The image will now stay on screen until you manually change it. You can use the Next or Previous keys on the remote to move at your own pace, or you can press Play/Pause again to resume automatic advance. The Options screen (see Tip #1) allows you to set the length of time each picture is displayed.

If you're browsing pictures in the thumbnail browser, there are two ways to launch into the full-screen viewer, as well. Press Select with a particular image highlighted to view that image. The image will stay on screen until you change it. Or, you can press Play/Pause with a particular image highlighted to begin viewing a slideshow starting with that image.

## Tip #3: Wait! Wait! Back up a couple!

Whether you're clicking your way through your images manually using the Next/Previous keys or letting the HD1000 do the work for you, you may find yourself wanting to back up a few pictures or skip over a few. Even a high-performance image viewer like the HD1000 takes a couple of seconds to decode a large file, so it would be a bummer to have to wait for each picture to come up before you could press Next or Previous again.

Happily, there is no need to wait. If you want to back up three pictures, just press the Previous button on your remote three times. Same goes for skipping forward.

## Tip #4: The Smart way to put a square peg into a round hole

While television is moving on into the brave new wide-screen world, photography is still pretty much back in the old square (well, 4:3 anyway) box. Therefore, most pictures taken with a digital camera won't fit perfectly on a 16:9 HDTV. Also, many artists (especially the pesky Renaissance types) were a bit lax in maintaining a proper 16:9 wide-screen aspect ratio as well.

Fortunately, your HD1000 has more than one way to fit a non-16:9 image onto your wide-screen HDTV.

First up is the most basic: "Fit." In Fit mode, the entire image is displayed centered on the screen. If the image isn't the same shape as your screen, the remainder of the screen is filled with black.



Next is "Fill." Fill mode zooms in on the image until it fills the entire screen. If the image isn't the same shape as the screen, then part of the image will be cropped.



Last but far from least is SmartDisplay™. This mode will fill your screen unless doing so would cause too much of the image to be cropped. If filling the screen crops too much, then the image is fitted to the screen instead. This mode works great when you have a mixture of portrait and landscape pictures.

In any of these modes, what is being adjusted is really just the initial zoom factor for the image. You can always zoom in or out on any given image, using the zoom rocker on the remote.

### **Tip #5: Zoom in on the action**

Your HD1000 supports a multilevel zoom feature. As mentioned in the previous tip, the initial presentation of your image will depend upon the Fit/Fill mode you select. But, maybe there's something

in a given image that you want to look at more closely. Or maybe you've selected Fill mode, and something interesting is being cropped on a particular image.

No worries. The Zoom rocker on the remote control allows you to zoom out until the entire image is visible on the screen, or zoom in to several levels of magnification.

As you zoom, notice the little indicator that appears in the lower left part of the screen. The transparent box represents your image, and the gray shaded portion represents the portion of the image visible on your screen. When you zoom all the way out, the whole box will be filled with gray – the whole image is visible. But as you zoom in onto a small portion of the image, the gray-shaded region shrinks, showing you only the portion of the image that's on your screen. This indicator can be pretty useful for finding your way around a picture at high magnifications.

### **Tip #6: Panning for gold**

When you zoom in on a freshly displayed image, you're zooming in on the center of the image. But maybe the interesting part isn't in the middle! No problem. Use the four arrow keys on the remote control to scroll a different portion of the image into view. Press the up arrow to move toward the top of the image, the left arrow to move toward the left edge of the image, and so on. As you do, again check out the pan & zoom indicator in the lower-left corner of the screen and notice how you can make it scoot around.

By the way, both the Zoom keys and the arrow keys repeat if you hold them down. No need to press Left 20 times to get to the left edge of the picture. Just press and hold.



## Tip #7: Which way is up?

If you take a picture holding the camera right side up, you get what's called a "landscape" picture — one wider than it is tall. Sometimes, though, the subject calls for a "portrait" picture — one taken with the camera rotated 90 degrees to the left or right so that the resulting image is taller than it is wide.

Some cameras actually have a built-in sensor which records whether the camera was rotated for a given picture. If you're lucky enough to have one of those cameras, your HD1000 will rotate the image right side up for you automatically.

For the rest of us, there's the Rotate button on the remote. Statistically, most people rotate their cameras counterclockwise when they take a portrait picture, putting the top of the subject at the right edge of the recorded image. By default, pressing the rotate button on the HD1000 remote also rotates the picture counterclockwise, which for most images will put the top where it should be.

Some people, however, rotate their cameras the other way. In the Options screen (see Tip #1), you can change the default rotation direction to match your preference. When you press the Rotate button on the remote, you'll notice that a rotation indicator pops up in the lower right corner of the screen. The direction of the arrow shows the direction of rotation.



By the way, sometimes a picture might not be rotated in your "usual" direction. Perhaps you're looking at pictures taken by a friend, and they prefer to turn the camera the other way. Not to worry. As with Next and Previous, you can press the Rotate button more than once in quick succession. Three presses will rotate an opposite-direction picture to the right orientation — no need to wait for each rotation to complete.

Finally, what if you want to get your pictures ready for a slideshow rather than having them initially pop up sideways? Easy. The Rotate button works in the thumbnail view as well. Just rotate the pictures so that their thumbnails look right, and your slideshow will look great.

Two quick notes on the subject of rotation: First, some PC image editing software will rotate an image but leave the thumbnail in its original orientation. If you've used this type of software, your thumbnails won't be an accurate representation of what you'll see on screen. Second, in version 1.5 of the HD1000 software, your HD1000 does not remember image rotations once you've changed

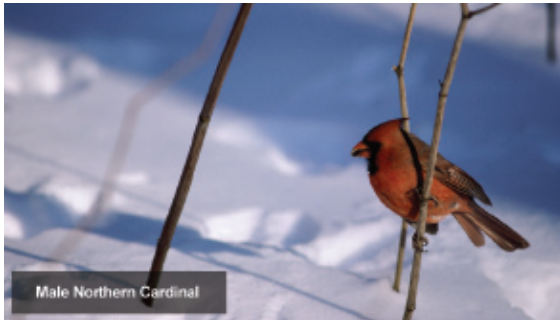


media sources or exited back to the Main Menu. That feature is in the works for a later software upgrade.

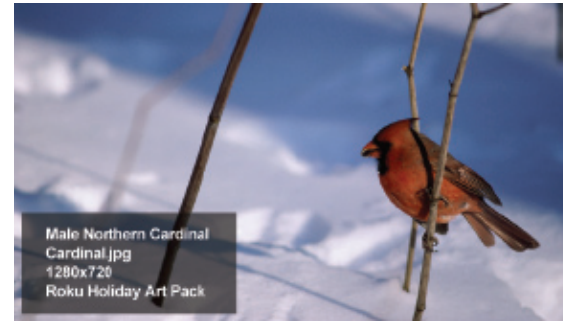
### Tip #8: Just the facts about this picture, Ma'am

If you're like a lot of digital camera owners, you have lots and lots of pictures. You may have so many of them that you can hardly remember when you took them. Fortunately, your HD1000 can help.

When viewing a picture, press the Info key on the remote. In the lower left corner of the screen you'll see some information displayed. The first line is the name of the file. Unless you've renamed your pictures with descriptive file names, this will probably look like "IMG0005.JPG." The second line is the time and date that the picture was taken, as recorded by your camera. (\*)



Photography buffs may want even more information about the picture: What was the f-stop? What was the shutter speed? Did I use a flash? Well, take heart, photo buffs. Press Info a second time to show exposure and flash information, as well as the dimensions of the image.



Press Info a third time to dismiss the display.

If you find yourself pressing the Info button a lot, you may want to set your HD1000 to automatically display info for each image when it first appears. This is done in the Options screen (see the first tip). You can choose whether to display the brief (2-line) info or the whole ball of wax. After a few seconds (a little longer for the detailed info), the display disappears automatically.

Note: If the time and date display is all zeros, the clock wasn't set on the camera. You may want to double-check to make sure that it is properly set for your future pictures. Refer to your camera's instruction manual.

### Tip #9: Tiptoeing through the Thumbnail Browser

If you are in the Browse feature looking at your image thumbnails, there are lots of ways to get around. The four directional arrow buttons on the remote control move the highlight one item at a time. The Next and Previous buttons advance the highlight sequentially through the images, as you would advance through a slideshow. And the Zoom In/Zoom Out rocker does double duty here to allow you to scroll a page at a time. In all cases, if you reach the first or last thumbnail, the display will wrap around to the other end of the list with an additional press.

### Tip #10: Extra fun with Art Packs

Art Packs come on a CompactFlash card similar to the ones used in digital cameras. When you insert the card with the Main Menu visible on screen, the Art Pack will start automatically, playing images and music.

If you return to the Main Menu, you'll notice that there are probably more options visible on the menu than you usually see with your own cards. The Browse and Slideshow buttons are available, as well as the Listen button. And there's an extra button at the bottom of the screen representing the Art Pack itself. You can use Browse, Slideshow and Listen just as you would on any other media source. To play the pictures and music together, just press the button under Roku Applications that corresponds to the Art Pack.



The music will stop when you exit the slideshow, either to the thumbnail browser or to the Main Menu. To start the show again with the music, go back to the Main Menu and press the button corresponding to the Art Pack.

One thing to note: some Art Packs may select a different delay between images than what you have set for your usual viewing. This is normal.

Need help? Go to [www.rokulabs.com/support](http://www.rokulabs.com/support)  
or contact [support@rokulabs.com](mailto:support@rokulabs.com).

# SETUP AND PREFERENCES

The HD1000 maintains a set of general user preferences that apply to all features. Additionally, some features (such as the image viewer) have their own user preferences.

## Setup

The general user preferences that apply to all features are configured in the Setup screen, accessed from the Main Menu. Press the Menu key on your remote to reach the Main Menu, then use the arrow keys to move the yellow highlight to the Setup button. Press the Select key to open the Setup window. In the Setup window you can modify settings in the following categories:

- Date and Time
- General
- Network Servers
- Screen Saver
- Video Format
- Video Placement

Move the yellow highlight to select a category of settings to modify, then press Select to access that category. When you access a category, a setup panel for that category appears. Usually, these panels will have on-screen directions. A more detailed discussion of their function follows:

## Set Time

Access the Date and Time settings panel to manually change the date and time on your HD1000. If your Roku HD1000 is connected to the Internet, the date and time will be updated automatically. This setup panel may be used to manually adjust the date and time in the event you do not have an Internet connection.

## General

Access the General settings panel to modify the general settings of your Roku HD1000. General settings include whether or not you want slideshows to autoplay when inserting a memory card, and options for browsing your media files.

## Network Servers

Access the Network Servers panel to specify which servers on your network your Roku HD1000 will use as a source for displaying photos, art and music. Your Roku HD1000 will search your local area network for exported network directories (Windows shares). It will automatically make the first two it finds available as sources for photos, art and music. Access the Network Servers panel to manually specify which network shares your Roku HD1000 should use. Visit **[www.rokulabs.com/support](http://www.rokulabs.com/support)** to download a PDF document containing detailed instructions for connecting the HD1000 to your home network.

## **Screen Saver**

This panel allows you to modify default screen saver settings.

## **Video Format**

This setup panel allows you to adjust the video output format of your HD1000. For detailed information regarding adjusting the video output format, consult the “Connecting the HD1000” section in this manual.

## **Video Placement**

This setup panel allows you to optimize the size and position (placement) of the video output signal your HD1000 sends to your television. Most HD television and monitors have their own settings for adjusting video size and position. These settings are often referred to as “horizontal and vertical size” or “picture position” and determine where on the screen the set will display the video image coming in.

This setup panel provides a wizard that allows you to optimize the video placement for your television or monitor in three easy steps. A good rule of thumb is to reset your television’s settings for video size and position to their default values before accessing this setup panel. If you are passing a video signal through your HD1000 (see the section in this manual entitled “Connecting Your HD1000 to Use the Video Pass-Through Feature”), then rather than resetting your television to its default values, you may want to adjust your television to make the source (pass-through) video signal look good before accessing this setup panel.

Once you are happy with your television’s settings for video size and position, you are ready to run the Roku HD1000’s video placement wizard. Follow the on-screen instructions for adjusting the

video placement of the output signal the HD1000 sends to your television.

First you will be asked to adjust the top left corner of your display using the directional arrow keys. Adjust the display so that the left and top edges are just visible at the edges of your television screen. Then you will be asked to adjust the bottom-right corner of the display, again using the directional arrow keys. You should adjust the display so that the right and bottom edges are just visible at the edges of your television screen. When finished with video placement adjustment you can accept or cancel your changes.

Note: During adjustment, a circle on a multicolored square background is displayed for your reference. To maintain a 16:9 aspect ratio, you should strive to keep this circle as round as possible. If you wish, you may hold a ruler up to your television screen and measure the sides of the multicolored square. If the sides are equal, your aspect ratio is a correct 16:9. It will appear elongated on a 4:3 display, as well as when you are using a 480i video format to output to a 16:9 display.

If you are using a 4:3 display (such as a standard definition TV), you may choose to adjust your video placement so that the image fills the screen (circle will appear elongated), or you may adjust your video placement in “letterbox” style so that the circle appears round. In this case, you will have a 16:9 aspect ratio, but the image will not fill the screen. It is your choice.

If you are using a 480i video format to output to a 16:9 display, your display will likely have different aspect ratio modes such as Normal, Zoom and Fill. In Normal mode, your television will display the 480i image in its native 4:3 aspect ratio, and the circle will appear elongated. In Fill mode, your television will display the 480i image

stretched to a 16:9 aspect ratio, and the circle will appear round. Use of a 480i video format on a 16:9 display is not recommended, but in the event you choose to do so, it is recommended that you use your television's Fill mode to stretch the 4:3 480i image to a 16:9 aspect ratio. You may then make video placement adjustments to fit the Roku HD1000's video output to the full screen and use the circle as a guide to maintaining a true 16:9 aspect ratio.

Note: When changing the video output connector and resolution, you may choose a setting which your display does not support. If this happens, your screen may go blank or show a garbled picture. No problem! Just wait 30 seconds, and the HD1000 will automatically return to the prior selection.

## Image Viewer Settings

Select a media source containing photos or movies, then move the highlight to the right onto the Browse button. Press Select. When the Browse window opens, move the highlight to the Options button and press Select. The Image Viewer Options window will open. In this window, you can customize how your images are displayed.

- Slideshow Delay: Set the delay between photos when watching an automatic slideshow.
- Image Display: Choose whether images should be displayed so that the entire picture fits on the screen (Fit Image), or zoomed and cropped so that they fill the entire screen (Fill Screen). SmartDisplay automatically selects the most appropriate option based on the orientation of the image (Portrait or Landscape).
- Info Display: Choose whether information about the image is displayed momentarily when each image is displayed. "Brief

Info" displays the filename and creation date. "All Info" shows additional image information.

- Rotation: Choose which direction images are rotated when using the Rotate button on the remote control.
- Browse Folders: Select whether you want to navigate through folders to access your images, or whether you would like the Image Viewer to "collapse" folders within a media source and display all the images in the same window. The Browse Folders option is useful when accessing large numbers of images stored in folders and subfolders.

Note: These options may also be accessed while actually viewing pictures by pressing Select on the remote to open the Photo Options window.

## Art Pack Settings

If you have purchased a Roku Art Pack, you can change the settings for Art Pack playback in the Art Pack Settings Menu. From the Main Menu, navigate down to the Setup button and press Select. Then select the highlighted Art Pack Settings button. Use the Up/Down arrows to navigate between the options and the Right/Left arrows to choose settings. When finished, select Done and then press Exit to return to the Main Menu.

Need help? Go to [www.rokulabs.com/support](http://www.rokulabs.com/support)  
or contact [support@rokulabs.com](mailto:support@rokulabs.com).



## Bypass Mode

When you press the power button on your Roku HD1000, it will enter Standby mode and display a pass-through video signal on its video outputs. The pass-through video signal will be the same video signal that is connected to the Roku HD1000's video input connectors.

If you select the "Auto ON" option on the No Video selector, and then place your Roku HD1000 in Standby mode (by pressing the power button), it will automatically switch between the pass-through video signal and its own video display whenever the input video signal is turned on or off. For example, if you connect your DVD player to the video input connectors, whenever you turn your DVD player on, the Roku HD1000 will automatically switch to pass-through video and display the DVD player's output. When you turn the DVD player off (and remove the input video signal), the Roku HD1000 will automatically switch back to its own video display.

Also, when you have the No Video selection set to "Auto ON," pressing the power button will take you in and out of an override mode, in which the Roku HD1000 remains displaying its own video signal, whether or not there is a video signal present on its inputs.

## Wireless

If you have a supported wireless adapter, you can connect your Roku HD1000 to a wireless network. First, make sure the wireless receiver is properly connected to the Roku HD1000's USB port. See [www.rokulabs.com/support/HD1000WiFi](http://www.rokulabs.com/support/HD1000WiFi) for a list of supported devices.

To complete the connection, you must enter the wireless network's name (ESSID) and password (if any) in the Wireless setup panel. You only need to enter this information once. The Roku HD1000 will automatically reconnect to the network if it ever loses power.

The ESSID is the name of the wireless network. Enter the name by pressing Select on the ESSID button, and then entering the name in the on-screen keyboard to the right. Remember that ESSIDs are case-sensitive, so use the on-screen Shift button to switch between capital and lowercase letters.

The Password field is only necessary on wireless networks configured to have a password. Enter a password with the on-screen keyboard.

Press the Done button to use these settings to connect to the wireless network.

## Sample Content

Sample content is stored on your Roku HD1000's internal memory. Select the Built-in media source at the top left side of your screen and get to know your new product. If you scroll down to Roku Applications and select Roku Art, the images and audio will play together as a musical slideshow.

# TROUBLESHOOTING

If your question isn't answered here, please visit the support section of our website for more troubleshooting hints, information and software updates.

## Connection troubleshooting

### Symptom: No picture

1. Check that the HD1000 and the display device are connected to active AC power outlets and turned on. The Power LED on the HD1000 should be blinking or steadily lit. If the Power LED is blinking, you are in initial setup mode. If the Power LED is steadily lit, see "Resetting Your Roku HD1000 to Initial Setup Mode" below to put your unit back into initial setup mode.
2. Check that the display is set to the correct input.
3. Check that the video cable from the HD1000 is connected to the correct Video Out connector(s).
4. If using component cables, unplug each of the three (red, green, blue) connectors from the HD1000 and verify that the color of the plug matches the color of the connector on the HD1000. Blue and green are easy to reverse accidentally, and this will result in loss of picture. If this does not solve the problem, do the same check on the display's connectors. Use a flashlight or other light source to verify the connector colors — green and blue look very similar in low light.
5. The Power LED should be blinking with the mode number of the current video output mode in the table on page 7. If it is not blinking, reset your unit to initial setup mode — consult the section "Resetting Your Roku HD1000 to Initial Setup Mode" below.
6. If your unit is in initial setup mode, follow the procedure in the section "Connecting Without On-Screen Display" on page 10.
7. If you still see no video, you may have a defective cable. Try another cable of the same type.

### Symptom: Picture appears, but is black and white

1. If using an S-Video or VGA connection, ensure that the cables are firmly connected to both the HD1000 and the display.
2. If using a Component connection, ensure that all three (red, green, blue) plugs on the cable are connected to the corresponding connectors on the HD1000, and that all three plugs are similarly connected on the display end of the cable.
3. The HD1000 may be misconfigured. Consult the section "Resetting Your Roku HD1000 to Initial Setup Mode" below and follow the procedure outlined there.
4. You may have a defective cable. Try another cable of the same type.



### **Symptom: Picture Appears, But Colors Are Wrong**

1. If using an S-Video or a VGA connection, ensure that the cables are firmly connected to both the HD1000 and the display.
2. If using a Component connection, un-plug each of the three (red, green, blue) connectors from the HD1000 and verify that the color of the plug matches the color of the connector on the HD1000. Swapping the red and blue connectors accidentally will result in improper color display. If this does not solve the problem, do the same check on the display connectors.
3. You may have a defective cable. Try another cable of the same type.

### **Resetting Your Roku HD1000 to Initial Setup Mode**

In some cases you may find yourself in a situation where the video output format has been set to a setting that your television cannot display. This procedure allows you to reset your unit so that you may re-run the initial setup procedures outlined at the beginning of this chapter.

1. Press the Exit button on the front panel five times.
2. Hold down the Menu button on the front panel.
3. With the Menu button held down, press and release the Exit button on the front panel.
4. Your Roku HD1000 should now be in initial setup mode. This is indicated by the Power LED blinking to indicate video format mode 1 (see table on page 7).
5. If your HD1000 is in initial setup mode, go to the beginning of this chapter and follow the procedures outlined there to set up your video mode.

6. If your HD1000 is not in initial setup mode (indicated by a steady Power LED or no Power LED), unplug your Roku HD 1000 for 10 seconds. Plug it in again. Wait two minutes and repeat this procedure.
7. If you still cannot get your Roku HD1000 reset to initial setup mode, please contact **support@rokulabs.com** for assistance.

### **Resetting Your Roku**

Great care has gone into designing the software that runs on the HD1000. But the software is very complicated, and it is possible that in rare circumstances your HD1000 could stop responding to remote control signals. In this case, you have two options. One is to unplug the HD1000, wait 10 seconds, and then plug it back in. This will “reboot” (reset) the HD1000 (a process that can take up to a minute). The other way to reboot the HD1000 is to hold down the Standby button for a few moments (until the green LED goes dark). Then release the button. This will also reboot the HD1000.

### **Browsing/Viewing Troubleshooting**

#### **Symptom: Music files won't play**

The HD1000 supports audio files in the following formats: MP3, WAV, AIFF (or AIF). Supported sample rates include: 8kHz, 16kHz, 22.05kHz, 24.0kHz, 32kHz, 44.1kHz, 48kHz, 96kHz. Files must be stereo, in 16-bit depth. The HD1000 currently does not support mono audio and bit depths other than 16-bit (such as 8-bit).



**Symptom: Images won't display**

The HD1000 supports JPEG images with standard (not progressive) JPEG compression only. Make sure that your image uses the extension .JPG or .JPEG (not .JPE). Images with EXIF data are supported.

**Symptom: Video files won't play**

The HD1000 supports MPEG2 Transport Stream files only. First, make sure the video file has one of the following extensions .MPG, .MPEG, .TS, .TP, and .TSP. Then, make sure that your video is a transport stream file. These are usually files created from ATSC video capture cards found in computers. They are commonly used to record broadcast TV programming as MPEG2 files. If you see the error message that the MPEG file does not play, the file is probably not a transport stream. Program Stream MPEG2 files (commonly found on DVD files) and all MPEG1 files (commonly found on files downloaded from the Internet) are not supported. Also, video files must be played over a wired (Ethernet) network. Playback over a wireless network is currently not supported.

**Symptom: Files recently saved on networked media source don't appear on HD1000.**

To refresh the HD1000's browser, click Menu. Browse to the icon corresponding to your shared media source on the left of the screen and press Select. If the folder selection window pops up, highlight the Select button at the bottom of the window and press Select on your remote control. Your contents should now appear refreshed. If you still have trouble viewing files, make sure your files match the supported formats (see "Music files won't play," "Video files won't play," and "Images won't display," above).

**Symptom: I am viewing images and would now like to listen to music. How do I go back to the Music Player?**

Press Menu to return to the Main Menu and press Listen. To navigate to desired music files on other media sources, highlight the desired media source on the left side of the Main Menu screen and press Select to view its contents. To listen to music and view images at the same time, see below.

**Symptom: I am listening to music and would now like to view images. How do I go back to the Image Viewer?**

With your music playing, press Menu to return to the Main Menu and press Slideshow. To navigate to other desired image files, highlight the Browse button and press Select (or, highlight the desired media source on the left side of the screen and press Select to view its contents). If you would like to view images without listening to music, press Pause before navigating from your Music Player back to the Main Menu.

**Symptom: I like the clock that comes with the HD1000, but the time isn't correct.**

From the main menu, select Setup. Scroll through the setup options and pick "Set Time." Set your time and timezone. Note: If your HD1000 is connected to the Internet, it should set the time automatically via "NTP."

For more helpful tips, see  
[www.rokulabs.com/support](http://www.rokulabs.com/support).

Need help? Go to **[www.rokulabs.com/support](http://www.rokulabs.com/support)**  
or contact **[support@rokulabs.com](mailto:support@rokulabs.com)**.

Note: The Roku software is based in part on the work of the Independent JPEG Group.

© 2004 Roku, LLC. All rights reserved. ROKU, the ROKU logo, and LiveArt are trademarks of Roku, LLC in the United States and other countries.

Software Version 1.5.18 | Revised April 29, 2004

**Roku**<sup>TM</sup>

[www.rokulabs.com](http://www.rokulabs.com)